

No. 630,839.

Patented Aug. 15, 1899.

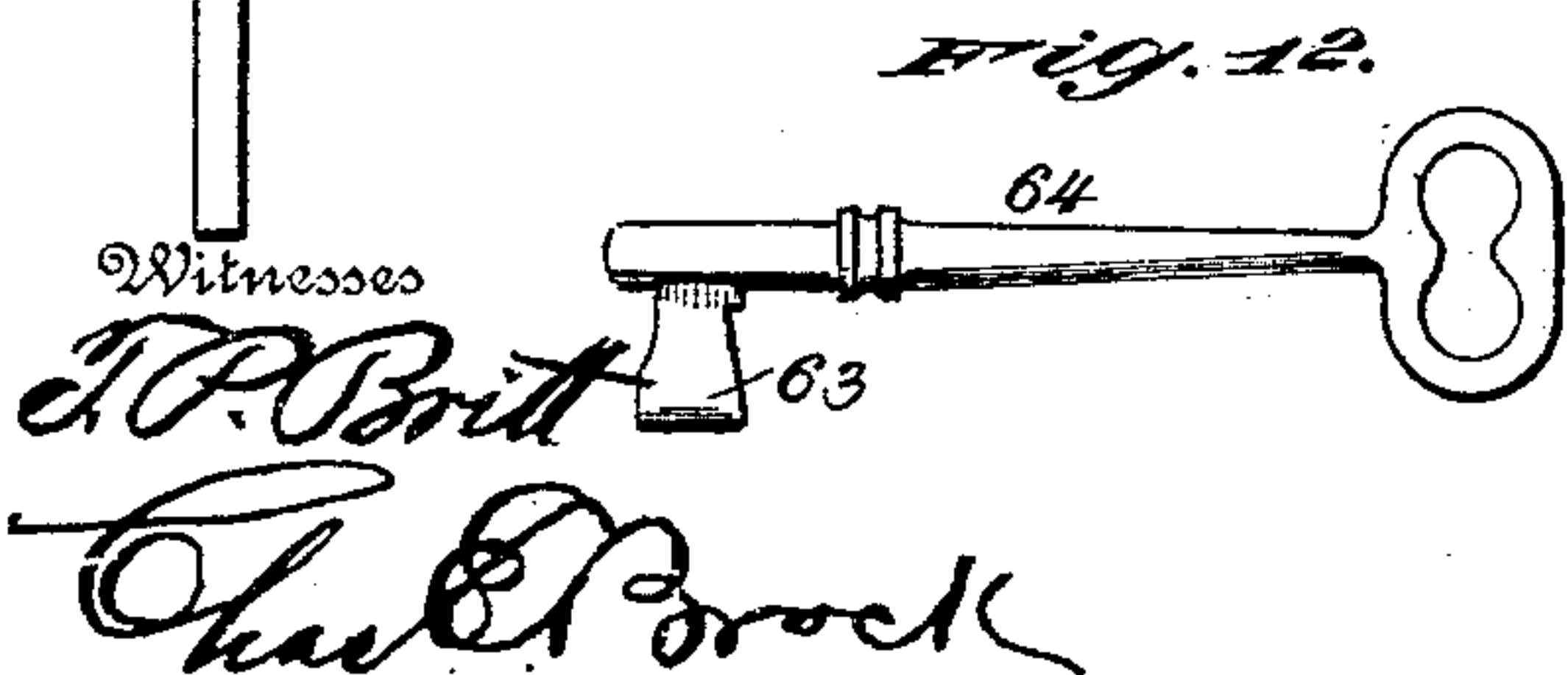
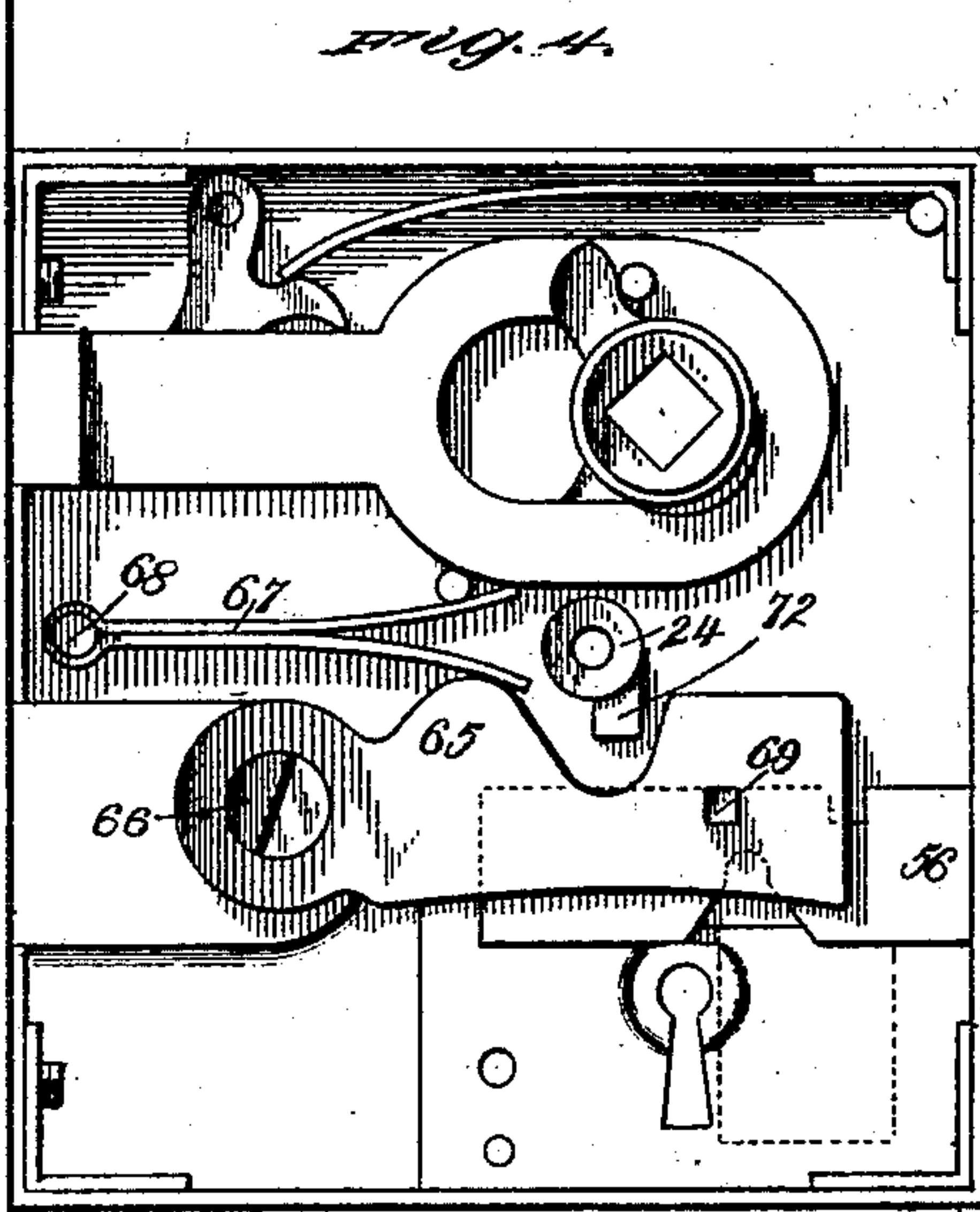
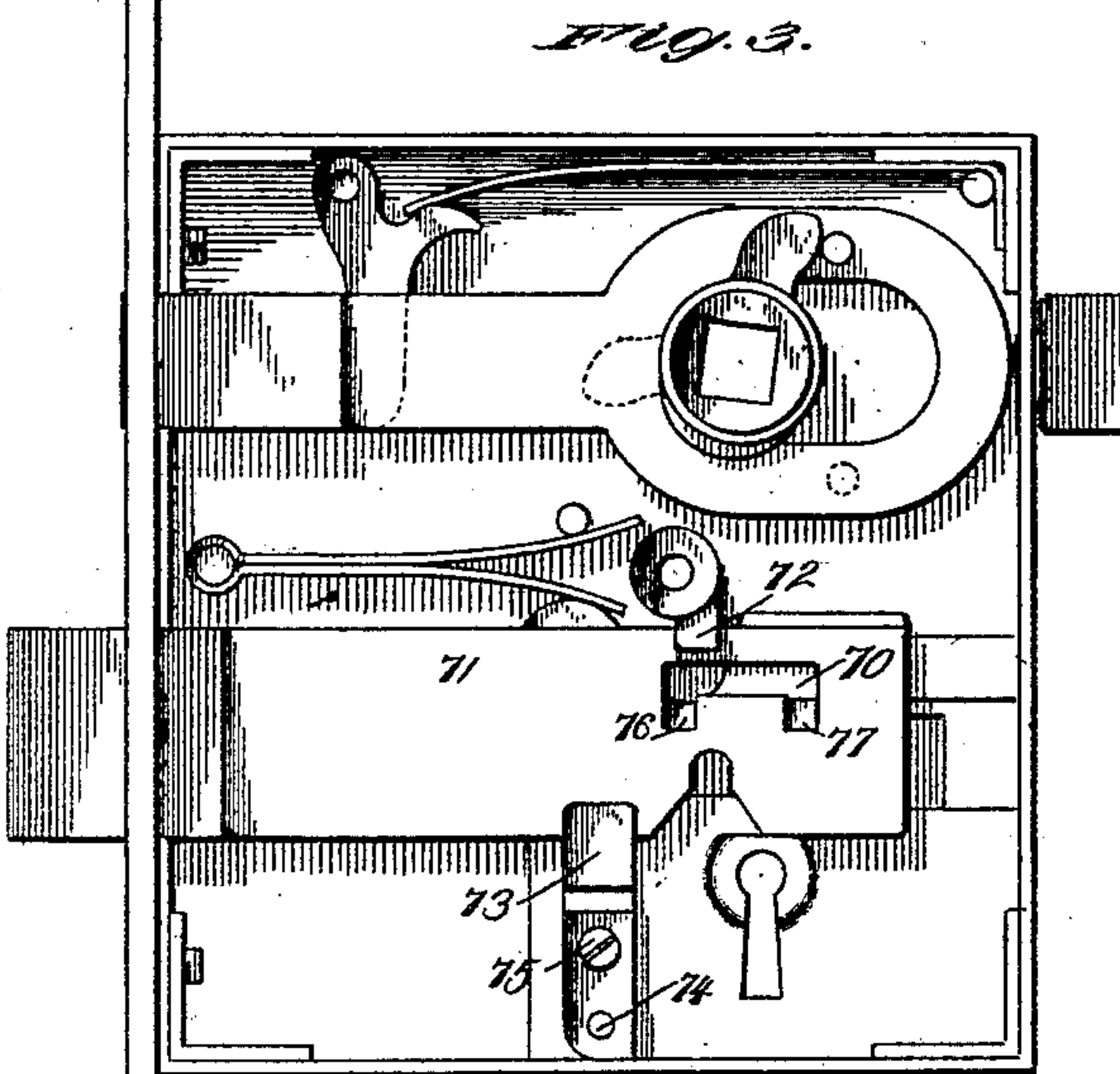
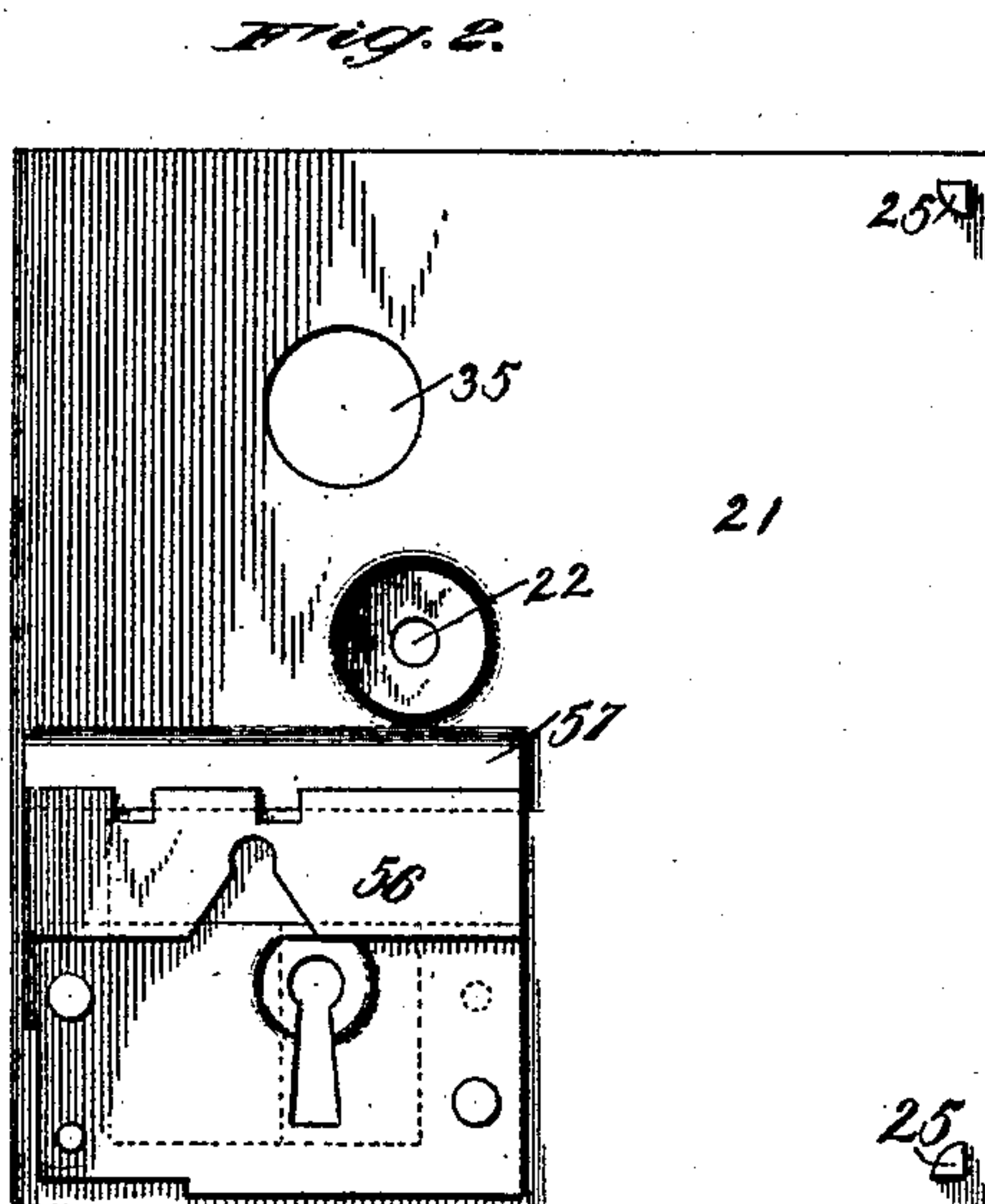
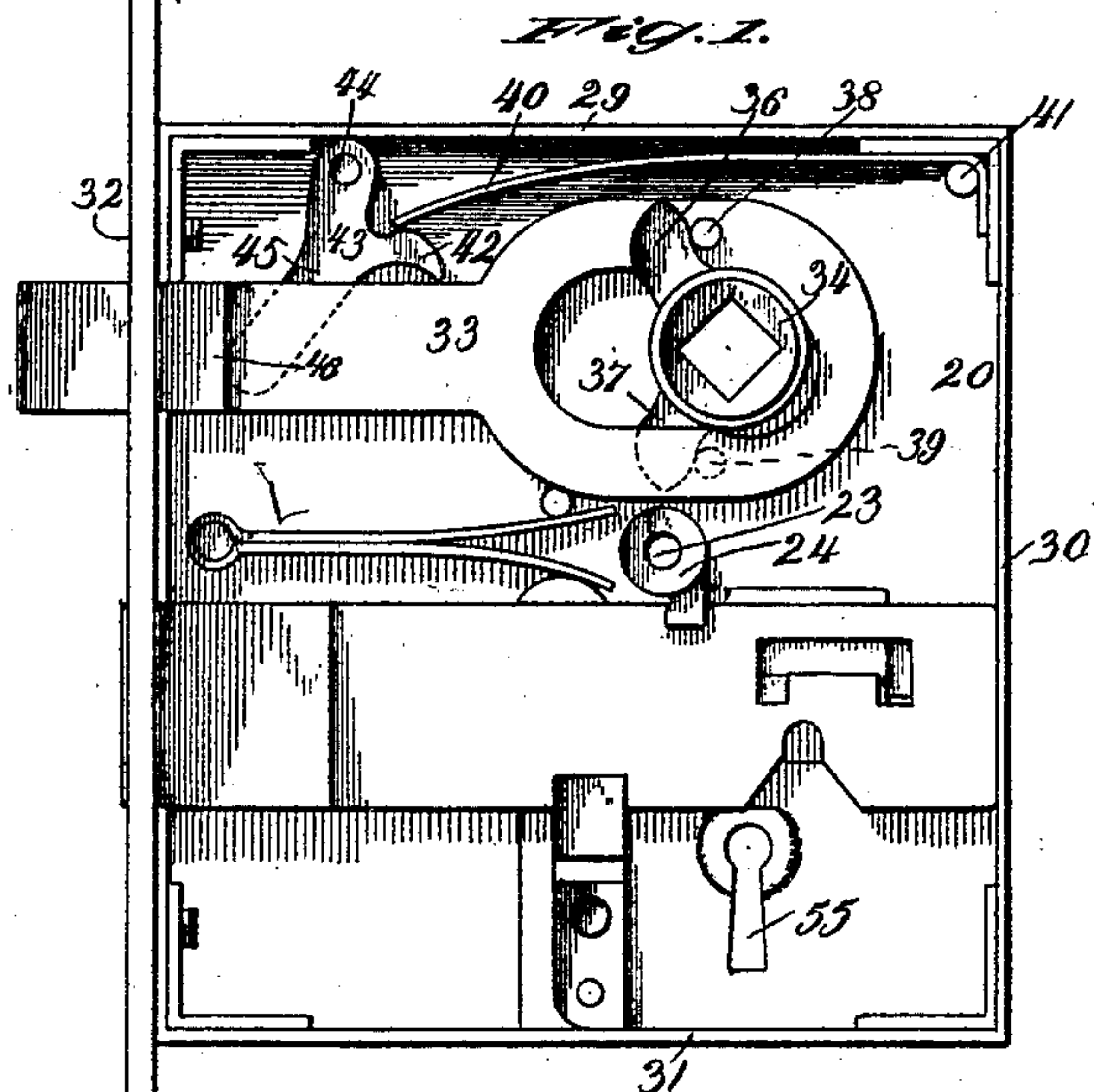
J. F. ANDERSON.

LOCK.

(Application filed June 6, 1898.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses
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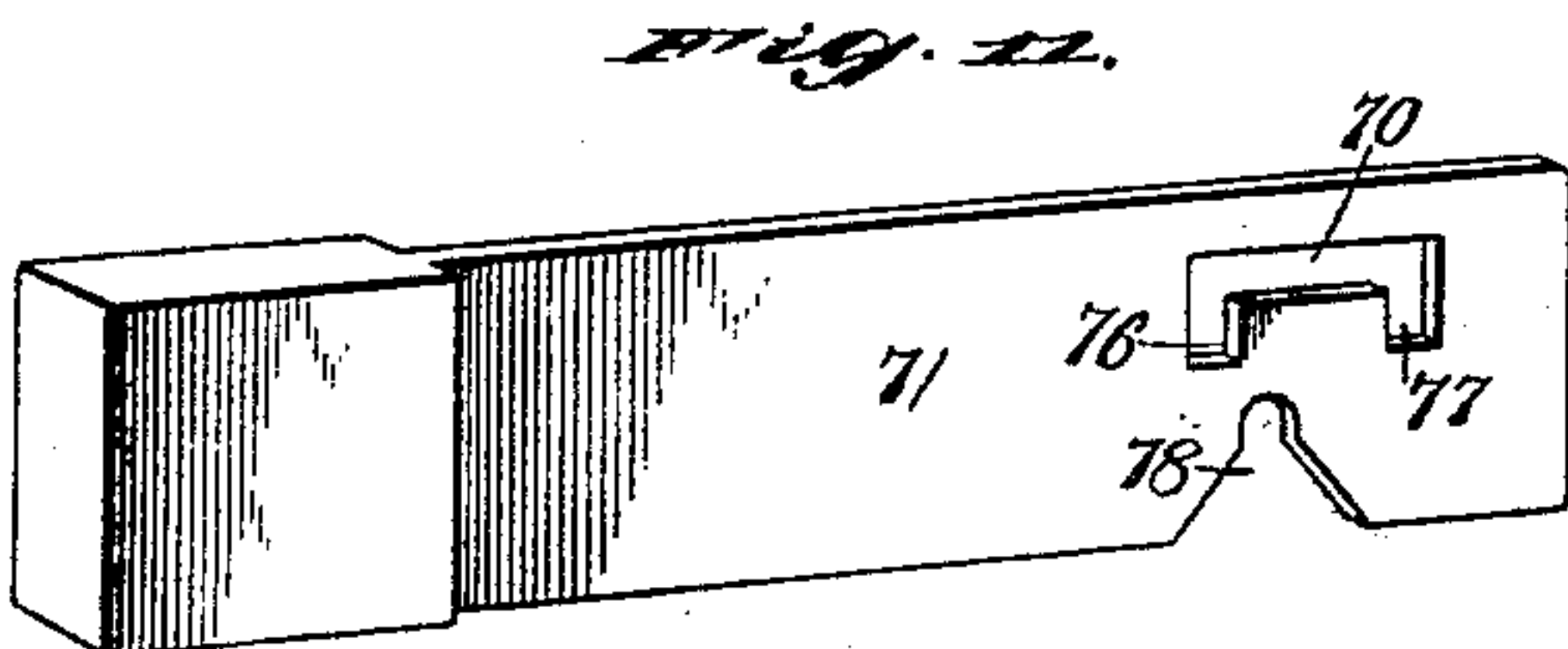
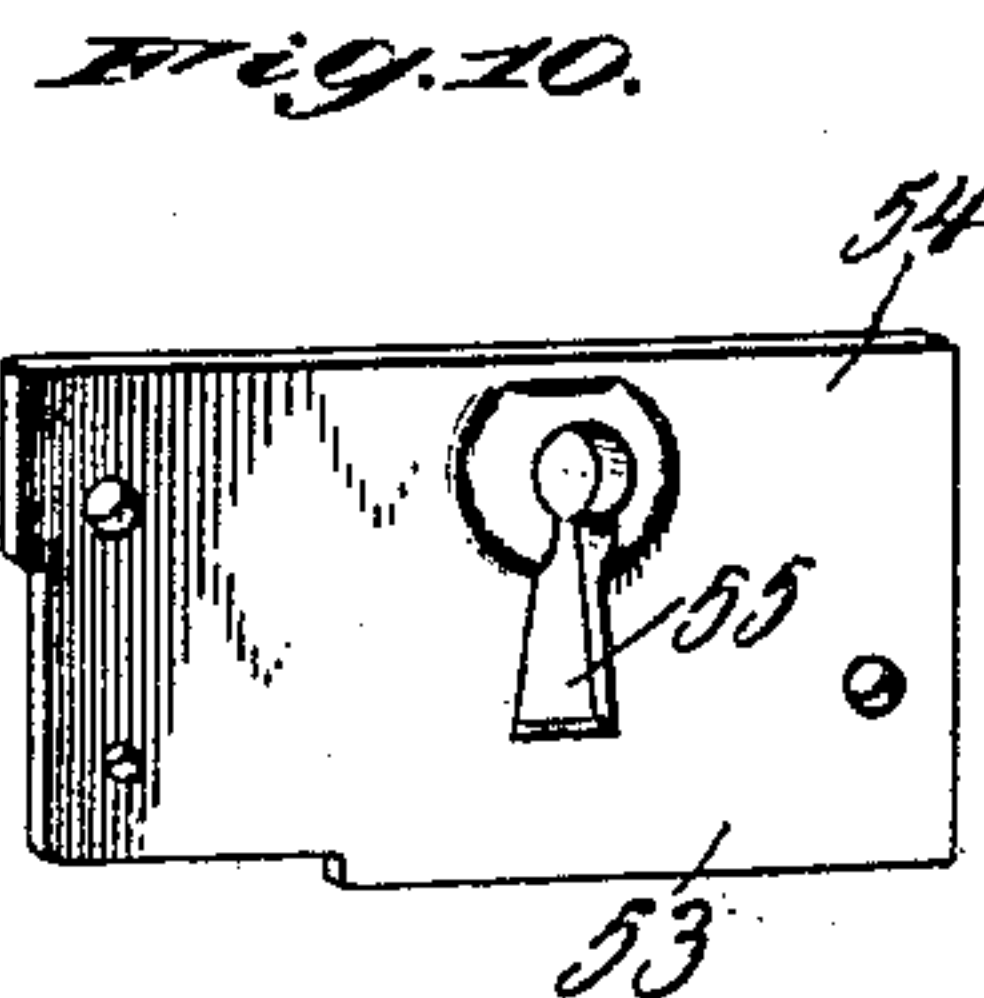
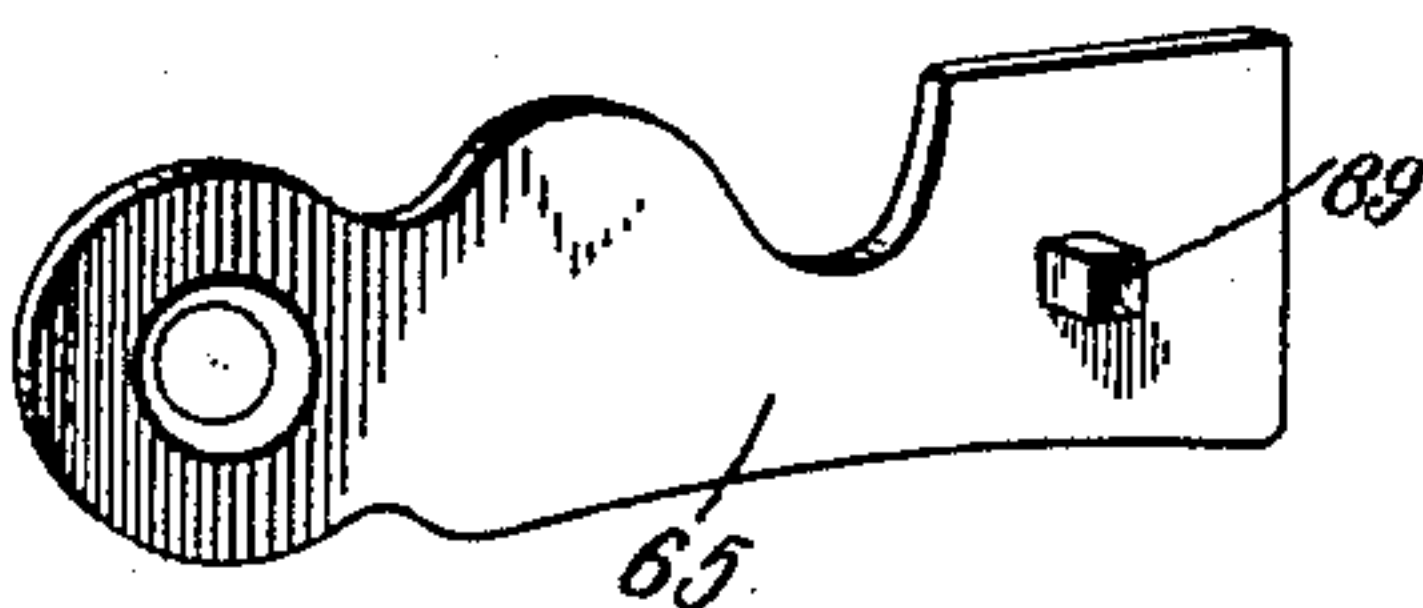
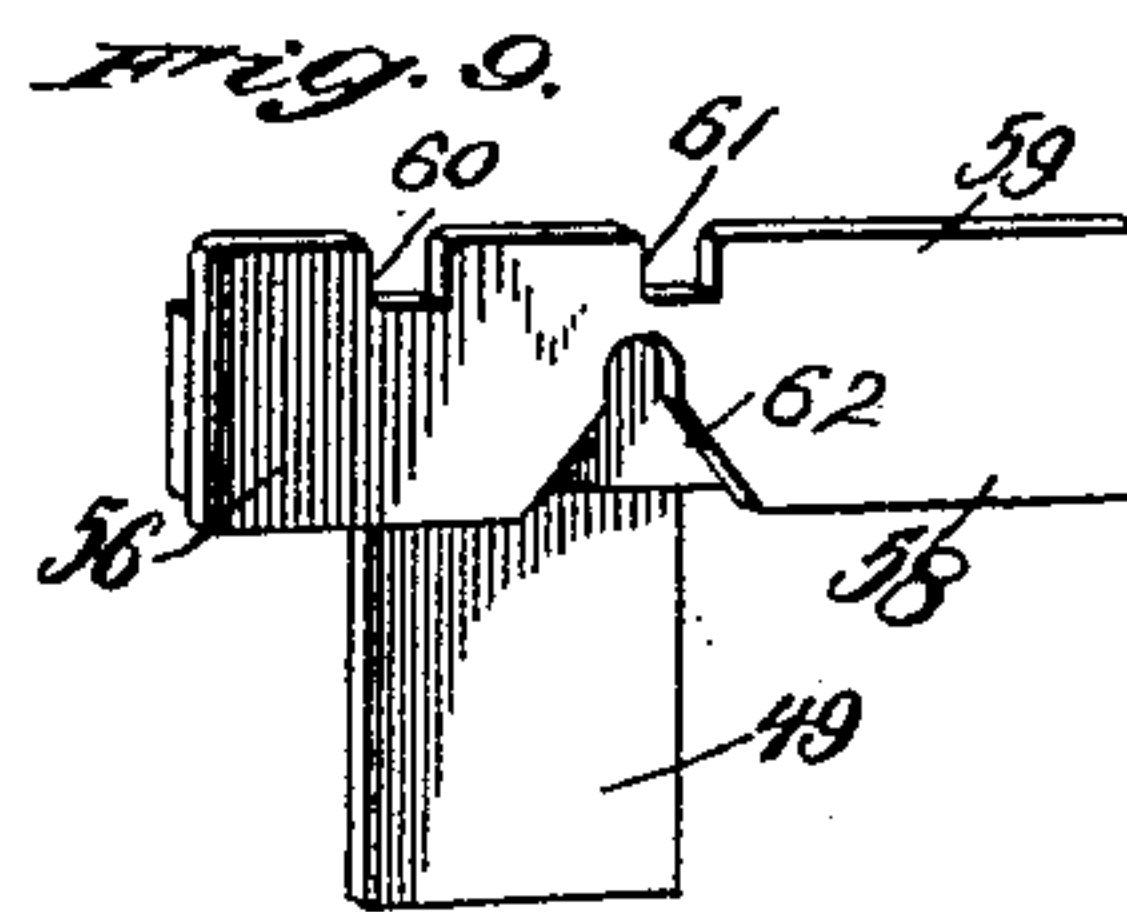
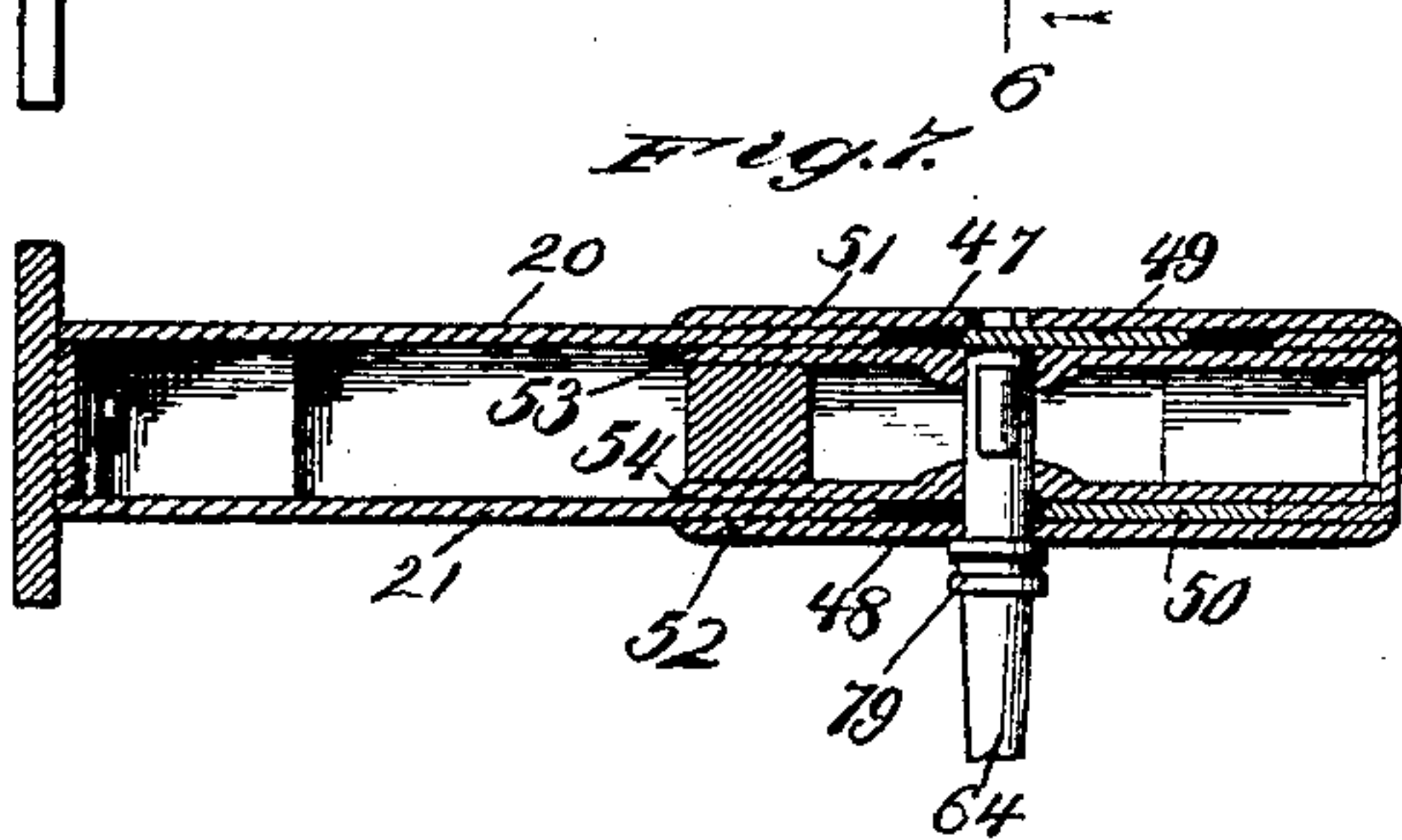
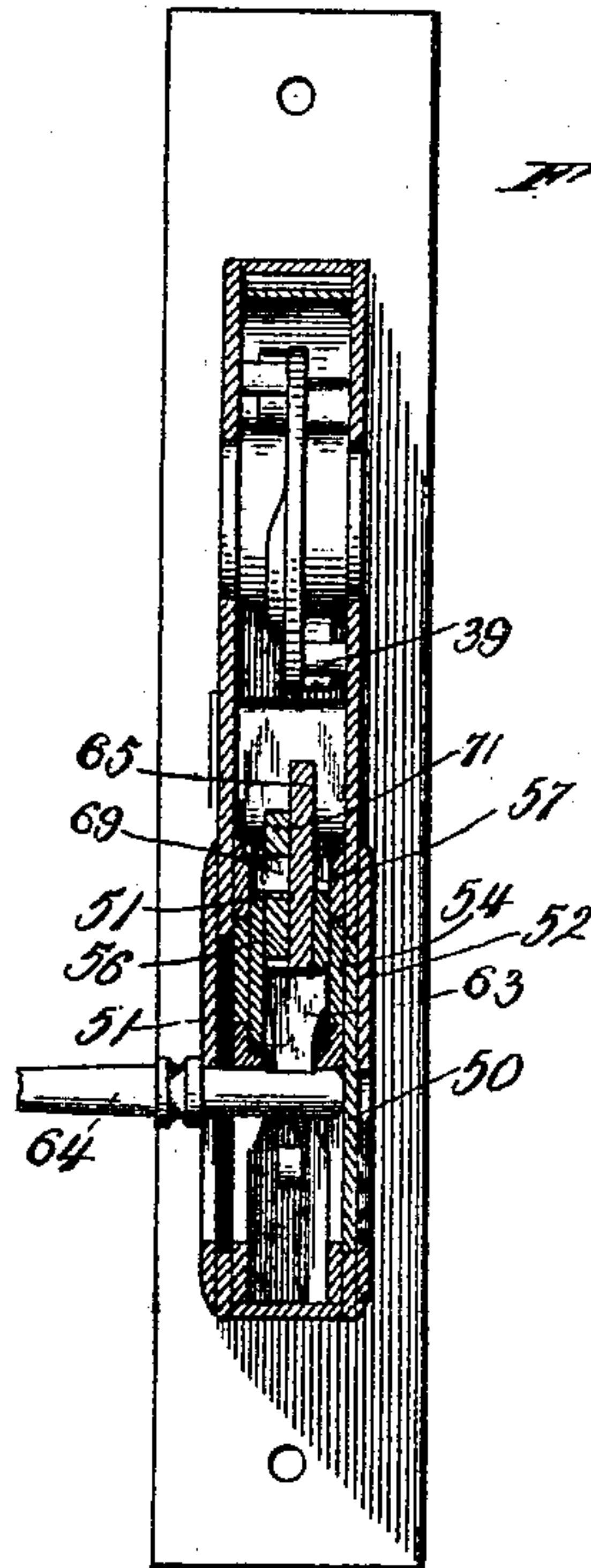
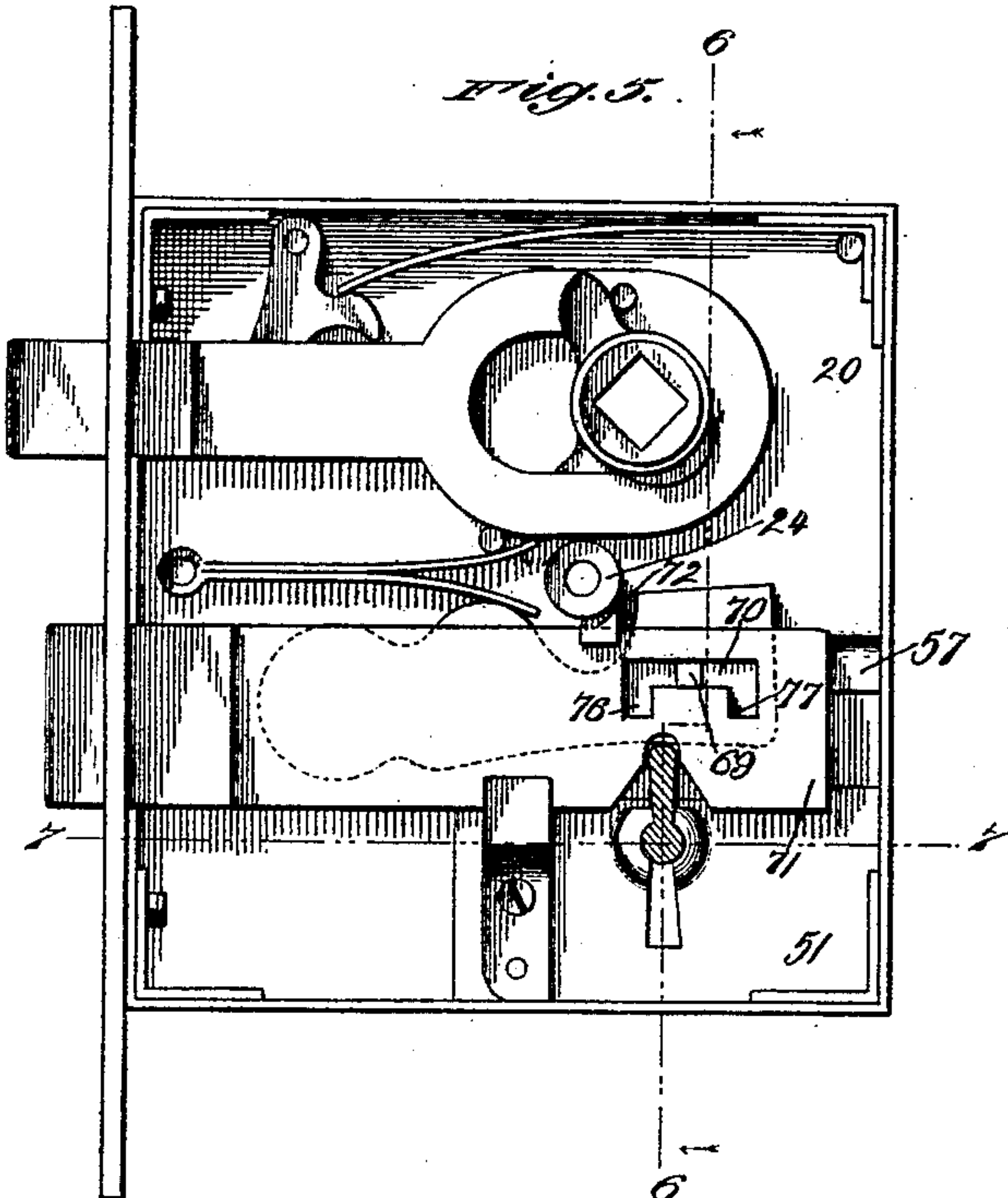
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2 Sheets—Sheet 2.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN FREDERIC ANDERSON, OF PASO ROBLES, CALIFORNIA.

LOCK.

SPECIFICATION forming part of Letters Patent No. 630,839, dated August 15, 1899.

Application filed June 6, 1898. Serial No. 682,737. (No model.)

To all whom it may concern:

Be it known that I, JOHN FREDERIC ANDERSON, a citizen of the United States, residing at Paso Robles, in the county of San Luis Obispo and State of California, have invented a new and useful Lock, of which the following is a specification.

My invention relates to locks, and more especially to certain simple, cheap, strong, and durable improvements to be applied to locks, the object being to provide, in addition to the usual protection afforded by locks, means whereby the act of projecting the bolt in locking the door will bring into operation a key-hole guard-plate for protecting the occupant of the room from prying eyes and against the insertion of a key from the opposite side of the door.

A further object of the invention is to improve the construction of the latch mechanism.

With these objects in view my invention consists in the improved construction, arrangement, and combination of parts herein-
after fully described, and afterward particularly pointed out in the claims.

In order to enable others skilled in the art to which my invention most nearly appertains to make and use the same, I will now proceed to describe its construction and operation, having reference to the accompanying drawings, forming part hereof, in which—

Figure 1 is a view of the lock with the removable lock-plate removed, the bolt being retracted and the latch projected. Fig. 2 is an inside view of the plate removed from the lock. Fig. 3 is a view similar to Fig. 1 with the bolt projected and the latch retracted. Fig. 4 is a similar view to Fig. 1 with the bolt removed. Fig. 5 is a similar view with the bolt partially projected, the key being shown in the lock in section. Fig. 6 is a vertical sectional view on the broken line 6 6 of Fig. 5. Fig. 7 is a transverse sectional view on the broken line 7 7 of Fig. 5. Fig. 8 is a detail perspective view of the tumbler removed from the case. Fig. 9 is a detail perspective view of one of the keyhole guard-plates removed from the case. Fig. 10 is a similar view of the inner plate of the guard-chamber. Fig. 11 is a similar view of the bolt.

Fig. 12 is a view in side elevation of the key used with my lock.

Like numerals of reference indicate the same parts in all the figures of the drawings.

Referring to the drawings by numerals, 20 indicates the fixed plate of the lock-case, and 21 the removable plate to be secured thereto by a screw to be passed through an opening 22 in the removable plate and threaded into an opening 23 in the hub or pillar 24, projecting from the fixed plate 20 to a level with the inside of the removable plate. The removable plate, to secure a rigid fit, is provided with corner-pins 25 to fit into the corners of the case when the removable plate is placed thereon.

29 indicates the top of the case; 30, the rear edge; 31, the bottom, and 32 the front face. In the present embodiment of my invention I have illustrated it as applied to a mortise-lock; but it will of course be understood that I am not limited to such application.

33 indicates the latch, which is slotted at its inner end to fit around a hub 34, the ends of which are fitted to rotate in an opening 35 in the removable plate and a similar opening in the fixed plate, (not shown,) the latch being adapted to be retracted by means of arms 36 and 37, contacting with pins 38 and 39, projecting from opposite sides of the hub, the latter pin 39 being shown in dotted lines in Fig. 1 and in full lines in Fig. 6. The latch is normally held projected by means of a spring 40, secured between a pin 41 and the top and rear of the case, the front end of the spring normally pressing on an arm 42 of a dog 43, pivoted on a pin 44 and provided with a downward-projecting arm 45 in contact with shoulder 46 on the latch.

The fixed and removable plates 20 and 21 of the lock are cut away at 47 and 48 to form a square chamber to receive guard-plates 49 and 50, which are of the same height as the square plate, but narrower, as best shown in Fig. 9, to leave room to slide in the chamber. The chambers 47 and 48 are inclosed by outer plates 51 and 52 and inner plates 53 and 54, secured to the removable and fixed plates of the lock and provided with the usual key-hole, as at 55. The guard-plates 49 and 50 are formed with horizontal extensions 56 on

their inner faces, which project above their upper edges and fit against guideways 57, formed on the inside of the lock-plate, the inner portion of the horizontal extensions being broader than that portion immediately adjoining the guard-plate, so that they overlap at the top and bottom, as at 58 and 59, the plates 53 and 54, which inclose the chambers 47 and 48, being slipped under the overlapping portion 58 and forming an additional guideway for the horizontal extensions during the movement of the guard-plates. These horizontal extensions are provided with notches 60 and 61 in their upper edges and are cut away at 62 in their lower edges, the latter space being intended to accommodate the ward 63 of the key 64, by means of which the guard-plate is reciprocated to cover or uncover the keyhole.

65 indicates the tumbler, which is pivoted to the fixed plate of the lock by means of a screw 66 and is normally held in its lower position by means of a spring 67, mounted on a pin 68, projecting from the fixed plate of the lock. The tumbler is provided with a projection 69 to engage in the notches 60 and 61 of the horizontal extensions of the guard-plates and in a slot 70 in the bolt 71, which lies against the tumbler 65, being held in position by a projection 72 on the hub 24, and a turn-button 73, pivoted on a pin 74 and secured in upright position by a screw 75. The slot 70 in the bolt 71 is provided with side extensions 76 and 77, projecting downward from the main body of the slot and registering with the notches 60 and 61 of the horizontal extensions 56 of the guard-plates, the pin 69 on one side of the tumbler engaging in the notches and the extensions of the slot at the same time. The bolt is also provided in its lower edge with a notch 78 of the same shape and size as the notch 62 in the horizontal extension 56 of the guard-plates.

By special reference to Fig. 6 the relative location of the guard-plate, the bolt, and the tumbler will be readily understood, the tumbler and bolt being located between the two horizontal extensions of the inner and outer guard-plate.

When the key is inserted into the lock, the annular flange 79 prevents its passage too far through, the inner end of the key resting against the opposite guard-plate if the bolt is projected.

When the bolt is withdrawn or in its unlocked position, both keyholes are open, and the key may be inserted from either side, when by turning the key in the proper direction its ward 63 will first raise the tumbler so as to raise the projection 69 on the tumbler out of the notch in the guard-plate and the extension of the slot 70 of the bolt in which it has been engaged, leaving the guard-plate and bolt free to be moved by the further rotation of the key, during which the ward of the key engages in the notches 62 and 78 of the guard-plate and bolt, respectively, and projects the

bolt into its locked position, carrying the outer guard-plate with it and covering the keyhole. During the latter portion of the movement of the key in projecting the bolt and guard-plate the spring 67 presses downward upon the tumbler 65 to cause the projection 69 to engage in the other notch of the guard-plate and the other extension of the slot of the bolt and hold the guard-plate and bolt rigidly in the position to which they have been thrown. From the foregoing it will be apparent that I have provided efficient and simple means whereby whenever the bolt of the lock is turned into its locked position a guard-plate on the opposite side of the lock will be also thrown and locked into position to securely cover the keyhole on that side, the guard-plate being retracted with the bolt when it is withdrawn and locked in its withdrawn position, again leaving the keyhole clear. The ward of the key has to engage only the guard-plate on the opposite side of the lock, the bolt, and the tumbler, leaving the guard-plate on that side of the lock in which the key is inserted undisturbed. The guard-plates and the means for inclosing them are duplicated on both sides of the lock, and the action on one side is the same as on the other. It is not absolutely necessary, however, that the guard-plate be fitted in both sides of the lock except that it renders the lock right and left handed. Where locks are made to fit either right-handed or left-handed doors, but one guard-plate is necessary to be located in the chamber on the outside of the lock. With this invention when the bolt is projected into its locked position the guard-plate is also locked with it and cannot be moved with any tool on the outside nor can a key be inserted from the outside without sliding or breaking the guard-plate, which last operation is rendered so extremely difficult that its performance would be equal to smashing the lock.

While I have illustrated and described the best means now known to me for carrying out my invention, I do not wish to be understood as restricting myself to the exact details of construction shown, but hold that any slight variation therefrom, such as might suggest itself to the ordinary mechanic, would clearly be comprehended in the limit and scope of my invention.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. The combination in a lock, of a bolt provided with a notch in its lower edge, and a longitudinal slot in its face having downwardly-projecting extensions, a guard-plate provided with an extension lying against the bolt and provided with a registering notch at its lower edge and notches at its upper edge to correspond with the downwardly-projecting extensions of the above-mentioned longitudinal slot; the notches in the lower edges of the guard-plate and bolt being adapted to receive the ward of a key when turned to

project the bolt, and spring-pressed tumbler carrying a lug projecting from its face, lying in the longitudinal slot of the bolt and adapted to engage one of the notches in the upper edge of the guard-plate and one of the extensions of longitudinal slot; substantially as described.

2. The combination in a lock, of a bolt provided with a notch in its lower edge, a longitudinal slot in its face having right-angular extensions at each end, a keyhole-guard comprising sliding bar carrying a downwardly-extending wing, and having notches in its upper edge to register with the extensions of the longitudinal slot in the bolt, a securing-plate designed to hold and retain said guard in operative position and a pivoted spring-pressed tumbler carrying a laterally-projecting lug normally lying in the longitudinal slot and adapted to engage one of the extensions of said slot and one of the notches in

the guard simultaneously, substantially as described.

3. The combination with the case of the lock, of the bolt 71 having longitudinal slot 25 70 with the extensions 76 and 77 and a notch 78 in its lower edge, the tumbler 65 provided with projections 69 to engage in the slot 70 during the movement of the bolt, and in either of its extensions at the ends of its throw, and 30 a guard-plate on the opposite side of the lock from which the key is inserted provided with notches which are duplicates and register with those of the bolt whereby the guard-plate is thrown in either direction with the 35 bolt and locked at either end of its throw by the tumbler, substantially as described.

JOHN FREDERIC ANDERSON.

Witnesses:

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